

I claim:

1. A combination of roofing layers comprising:  
a hardened foam roofing panel having a first block of  
5 polyurethane foam with a top surface, a bottom surface, and at  
least one indented periphery;  
said top surface having an integral layer of fabric bonded  
to said block;  
at least one base layer; and  
10 said bottom surface of said first block being in contact  
with said at least one base layer.

2. A combination of roofing layers as in Claim 1, wherein  
said at least one base layer comprises at least one fireproofing  
15 layer.

3. A combination of roofing layers as in Claim 2, wherein  
said at least one fireproofing layer comprises a gypsum core.

20 4. A combination of roofing layers as in Claim 1, wherein  
said at least one base layer comprises:  
a first foam layer having a second top surface and an  
opposing second bottom surface contacting a roof surface;  
a core layer having a third top surface and opposing third  
25 bottom surface being in communication with said second top  
surface of said first foam layer; and  
said third top surface contacting said bottom surface of  
said of said first block of polyurethane foam.

30 5. A combination of roofing layers as in Claim 1, wherein  
said at least one base layer comprises a plurality of core  
panels, each said panel having an edge perimeter.

6. A combination of roofing layers as in Claim 5, wherein at

least a portion of said perimeter of each said panel rigidly contacts a perimeter of a second said panel.

7. A combination of roofing layers as in Claim 5, wherein  
5 said perimeter of each said core panel is separated by a distance, said distance defining a gap portion.

8. A combination of roofing layers as in Claim 5, wherein  
said first block of polyurethane foam extends downward into said  
10 gap portion of said base layer.

12. A method of forming a layered roofing system comprising the steps of:

applying a core layer;  
15 applying an integral foam layer; and  
applying a reinforcing mesh, a portion of said foam layer penetrating upward through said reinforcing layer.

13. A method of installing fire resistant roofing tiles comprising:

20 a) spraying a foam rising adhesive on a surface;  
b) waiting for said foam rising adhesive to obtain a creamy consistency;

c) applying a first tile panel and an adjacent first subsequent tile panel to said surface; each said tile panel  
25 having a respective fire resistant layer adhered thereto;

d) waiting for said adhesive to cure and rise within a joint formed between said first tile panel and said first subsequent tile panel;

e) applying further tile panel and subsequent further tile  
30 panel to said surface;

f) waiting for said adhesive to cure and rise within further joints formed between said first subsequent tile and said further tile panel;

g) repeating steps "c", "d" and "e" and "f" on next subsequent pairs of tile panels until said foam adhesive completes rising between said joints and accumulates as debris above a plane formed by said tile panels accumulated in a  
5 seamless configuration;

h) removing debris formed by said foam rising adhesive from the top surface of said tile panels; and,

i) applying an elastomeric coat to the top surface of said joined, seamless accumulation of tile panels.

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14. A method of installing roofing tiles according to claim 13, wherein said elastomer is an acrylic.

15. A method of installing roofing tiles according to claim  
15 1, wherein said elastomer is a urethane.

16. A method of installing roofing tiles according to claim 13, wherein said elastomer is silicone based.

20 17. A method of installing roofing tile panels according to claim 14, wherein application of said first and said subsequent tile panels further comprises:

applying said first tile panel having a first length; and

applying said second tile panel having a second length,

25 wherein said second length of said second tile panel is different than said first length of said first tile panel.

18. A fire-resistant, crush resistant and puncture resistant seamless waterproof roofing system comprising a plurality of  
30 adjacent cured foam panels attached to a roofing by a foaming adhesive bonding said panels to a substrate of said roof, each said panel having a respective fire resistant layer adhered thereto;

said adhesive rising between said panels, sealing said panels to each other by expansion through loose inter-panel joints between said panels,

said panels having an on-site coat of elastomeric sealing material thereon, said coat of elastomeric sealing material covering a fabric layer above each of said panels.

19. The roofing system as in claim 18 wherein said panels are polyurethane.

20. The roofing system as in claim 18 wherein said sealing material is a silicone.

21. The roofing system as in claim 19 wherein said polyurethane is a dense polyurethane foam having a strength of at least three pounds per cubic foot.

22. The roofing system as in claim 18 wherein said fabric is an integral top layer of non-woven 250 gram polyester fabric saturated by said foam.

23. The roofing system as in claim 18 wherein adjacent panels have tongue-in-groove edges fitting into adjacent tongue and groove edges of adjacent panels.

24. The roofing system as in claim 19 wherein said adhesive is low rise foam polyurethane adhesive, said adhesive seeping through loose tongue-in groove joints.

25. The roofing system as in claim 19 wherein said foaming adhesive used to both bond the said panels to a substrate and to rise between said panels, seals said panels to each other through loose inter-panel joints accommodating said risen adhesive therebetween, forming a seamless accumulation of said panels.

26. The roofing system as in claim 19 wherein said roof has panel seams which are staggered by using alternate whole panels as well as half panels upon said roof.

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27. The roofing system as in claim 19 wherein said plurality of panels includes an edging bridging a wall under said roof, a support beam supporting said panels, and said panels.